FASEB
1989 CONFERENCE AGENDA
Cellular and Molecular Genetics

Monday, June 19
9:00 a.m.

Session I
Transcription Factors

Chairperson: Michael G. Rosenfeld
University of California, San Diego
Kathryn Calame
Columbia University
Robert Tijan
University of California, Berkeley

This session is designed to examine the similarities and differences in the properties and tissue specific distribution of transcription factors.

Monday, June 19
7:30 p.m.

Session II
Molecular Organization and Action of Receptor and Regulatory Proteins

Chairperson: Keith Yamamoto
University of California, San Francisco
Mark Johnston
Washington University
Carl Wu
National Institutes of Health
Jeremy Thorner
University of California, Berkeley

Several proteins, notably receptor proteins and G proteins, have now been identified as compounds which may interact directly with DNA to direct the transcription of specific genes. The presentations in this section will attempt to extrapolate from information gathered in relatively well-defined systems to make predictions about the basis for the action of other regulatory proteins.

Tuesday, June 20
9:00 a.m.

Session III
Gene Regulation by Growth Factors and Cytokines

Chairperson: Gretchen J. Darlington
Baylor College of Medicine
Gordon Wong
Genetics Institute
George Stark
ICRF
Joan Massague
University of Massachusetts Medical School

Secreted cytokines which have pleotropic biologic sites, including growth promotion and the promotion of cellular differentiation are being isolated, characterized, and cloned at a rapid rate. Examples of the way in which these important cellular products may influence the regulation of genes in a tissue-specific fashion will be presented in Session III.

Tuesday, June 20
7:30 p.m.

Session IV
Tissue Specific Gene Regulation

Chairperson: Helen Blau
Stanford University
Gunther Schutz
Deutsche Krebsforschungszentrum
Robert G. Roeder
Rockefeller University
Peter Gruss
Max Planck Institute of Biochemistry

The goal of this session is to describe somatic cell genetic approaches to the characterization of sequence elements which are important in the regulation of both tissue-specific and ubiquitous genes. The cellular differentiation systems that will be focused on in this section are the liver, muscle and erythropoietic cells.

Wednesday, June 21
9:00 a.m.

Session V
Human Disease and Gene Therapy

Chairperson: Savio Woo
Baylor College of Medicine
Lap-Chee Tsui
Hospital for Sick Children, Toronto
Richard Mulligan
Massachusetts Institute of Technology
Mario Capecchi
University of Utah

The analyses of disease genes in transgenic animal systems offers a means of identifying human disease counterparts for mapping and characterization. Session V will be devoted to the identification of new approaches to develolp useful animal models of inherited disorders.

Wednesday, June 21
7:30 p.m.

Session VI
Cell Cycle Regulation

Chairperson: Daniel Nathans
Johns Hopkins School of Medicine
David Beach
Cold Spring Harbor
Ed Harlowe
Cold Spring Harbor
Andrew Murray
University of California, San Francisco

The control of cell proliferation has been expored by genetic means. Recently it has been possible to examine the transcriptional regulation of genes critically involved in cell cycle progression.

Thursday, June 22
9:00 a.m.

Session VII
Post-transcriptional Mechanisms of Gene Regulation

Chairperson: Jeffrey Ross
McArdle Laboratory
Allan Jacobson
University of Massachusetts Medical School
Richard Klausner
National Institutes of Health
Ellie Ehrenfeld
University of Utah

In the analysis of tissue-specific gene regulation and transcription one must consider modification at post transcriptional levels as well. This session will present a summary of mechanisms of post-transcriptional regulation.

Thursday, June 22
7:30 p.m.

Session VIII
Gene Regulation During Differentiation and Development

Chairperson: Charles Emerson
University of Virginia
Michael Karin
University of California, San Diego
Michael Kuehl
National Cancer Institute
Jim Smith
National Institute of Medical Research, London

The regulation of differentiation pathways can be explored in somatic cell lines that exhibit progression to the final specialized phenotypic state. The molecular analysis of genes that are associated with progression will be presented in Session VIII.

Friday, June 23
9:00 a.m.

Session IX
Molecular Analyses of Oncogenes and Tumor Suppressors

Chairperson: Inder Verma
The Salk Institute
Owen Witte
University of California, Los Angeles
Wen-Hwa Lee
University of California, San Diego
Anton Berns
Netherlands Cancer Institute

Abnormal transcription and expression of cellular oncogenes may lead to tumor promotion and progression. This session will explore the mechanisms by which cellular oncogenes and tumor suppressors lead to abnormal cellular growth and the basis for the accompanying modification of tissue-specific gene expression.